

DOCKET NO.: MSFT-0736/183220.01
Application No.: 10/017,265
Office Action Dated: July 27, 2005

PATENT
REPLY FILED UNDER EXPEDITED
PROCEDURE PURSUANT TO
37 CFR § 1.116

REMARKS

Claims 1-41 are pending in the present application, with claims 1, 16 and 30 being the independent claims. Claims 1, 16 and 30 have been amended herein to clarify that the claimed methods, mediums and devices are not merely directed to an abstract idea, and to emphasize that the deterministic mapping mechanism provided in accordance with the invention applies to each type of a particular type-based system. Claims 14 and 28 have been canceled without prejudice. No new matter was added.

In the Official Action, dated July 27, 2005, claims 1-41 were rejected under 35 U.S.C. § 101 as allegedly directed to non-statutory subject matter. Claims 1, 13-16 and 28-30 were rejected under 35 U.S.C. § 102(e) as allegedly anticipated by US Patent No. 6,772,216 (Ankireddipally et al.).

Claims 2-12, 17-27 and 31-41 were rejected under 35 U.S.C. § 103(a) as allegedly obvious over Ankireddipally et al. variably in view of any one or more of US Patent Publication No. 20030070158 (Lucas et al.), US Patent Publication No. 20030058277 (Bowman-Amuah), US Patent No. 6,341,289 (Burroughs et al.), US Patent No. 6,518,979 (Spertus et al.), US Patent Publication No. 20030212904 (Randle et al.) and US Patent Publication No. 20040093344 (Berger et al.). The outstanding rejections are respectfully traversed based on the present amendments and below remarks.

Rejection under 35 U.S.C § 101

With respect to the rejection under 35 U.S.C. § 101, Applicants respectfully submit that the present amendments to claims 1, 16 and 30 coupled with the cancellation of claims 14 and 28 render the outstanding rejection moot. Entry after final of the amendments made

herein is respectfully requested because they place the claims in statutory form, in condition for allowance, without necessitating further search or consideration.

Summary of the Invention

In an ideal distributed computing environment, a service would present itself to its clients, either automatically or by client request, in terms of the actions it can perform and the data it needs to send or receive in order to perform them, and according to what rules the clients need to follow to achieve the action and proper sending or receiving of the data. These presentations by services, also known as interface contracts, enable clients to classify services and communicate with them. Then, interoperability between service(s) and their client(s) is achieved by using wire format(s) derived from the interface specification(s). An ideal language for interface description would make the mapping between an interface specification and its wire format deterministic, simple and obvious; however, at the time of Applicants' invention, no such ideal language existed and thus there was a need in the art for such an interface description language.

In view of that need, the present invention provides a Type Description Language (TDL), an extensible markup language (XML) based language, which provides an interface description that makes the mapping between an interface specification and its wire format deterministic and simple. TDL leverages the duality between the type-based (objects) and XML-based views and may be used for exchanging metadata between various kinds of type (object) systems, such as Component Object Model (COM), Common Object Request Broker Architecture (CORBA), Common Language Runtime (CLR), etc. **TDL proposes a new grammar for representing the behavioral aspect of a type and illustrates that, for each**

type, there is a one to one mapping from an abstract type to a schema type and vice-versa.

Ankireddipally et al.

Ankireddipally et al., in contrast, relates to an application interaction protocol that is used to implement secure Internet-wide electronic commerce applications. The protocol is referred to as the Commerce Exchange Interaction Protocol (CXIP) and operates at the application level, providing a formal set of procedures to facilitate functional interoperation among application services and processes. The CXIP protocol specifies the message types that are exchanged between applications, the semantics of these messages and the exchange order.

Ankireddipally also discloses:

- cXML defines a set of document type definitions (DTDs) for XML to describe the characteristics of non-production Maintenance, Repair, and Operations (MRO) goods and services. **5:42-45**
- Persistence service 19 has the responsibility of mapping between an XML document and the respective data store schema. **13:1-3**

In this regard, Applicants respectfully submit that these unrelated passages cited in the Official Action cannot be said to teach or suggest “describing the service with an extensible markup language (XML)-based Interface Description Language (IDL) that one to one maps each type of a particular type-based system to an XML schema and vice versa,” as recited, for instance, in claim 1, at least because there simply is no disclosure of any one to

one deterministic mapping between types of any particular type-based system to an XML schema.

Moreover, Applicants respectfully implore the Examiner to consider related parts of the disclosure of Ankireddipally, as opposed to unrelated parts. In the absurd, every invention is anticipated by the dictionary since each word of a claim may be found therein. Applicants respectfully submit that the two passages identified in the Official Action have nothing to do with one another, do not build on one another conceptually, and thus one of ordinary skill in the art would be led to think of the concepts separately. It is the invention *as a whole* that must be anticipated, not in separate unrelated snippets from a lengthy disclosure.

Moreover, Applicants respectfully submit, inter alia, that the claims are being read as if the “one to one” limitation is not present. Indeed, on page 12 of the Official Action, in paragraph 14, it is alleged that “Ankireddipally teaches describing the service with XML based language that maps a type to a schema.” (ignoring the one-to-one mapping requirement) At a minimum, therefore, Applicants respectfully submit that there is no showing by the Examiner that Ankireddipally teaches describing a service an XML based language that one to one maps each type of a particular type-based system to an XML schema and vice versa.

Similarly, claims 16 and 30 recite “a mapping mechanism for describing a service of one of a device and object in a computing system with an extensible markup language (XML)-based Interface Description Language (IDL) that one to one maps each type of a particular type-based system to an XML schema and vice versa.”

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Lucas et al., Bowman-Amuah, Burroughs et al., Spertus et al., Randle et al. and Berger et al. were cited for reasons related to the dependent claims, but also fail to teach or suggest at least the above-identified features of claims 1, 16 and 30.

Claims 2-15, 17-29 and 31-41 depend from base claims 1, 16 and 30, respectively, either directly or indirectly, and are believed allowable for the same reasons. For the foregoing reasons, reconsideration and withdrawal of the rejections to claims 1-41 under 35 U.S.C. §§ 102, 103 is respectfully requested.

CONCLUSION

Applicants believe that the present Amendment is responsive to each of the points raised by the Examiner in the Office Action, and submit that Claims 1-13, 15-27 and 28-41 of the application are in condition for allowance. Favorable consideration and passage to issue of the application at the Examiner's earliest convenience is earnestly solicited.

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Thomas E. Watson
Registration No. 43,243

Woodcock Washburn LLP
One Liberty Place - 46th Floor
Philadelphia PA 19103
Telephone: (215) 568-3100
Facsimile: (215) 568-3439